

IN THE CLAIMS

1. (Currently amended) A system for interconnecting telephones and computers, said system including

trunk interconnection resources that can be used for either computer data traffic or telephone traffic, said trunk interconnection resources providing a ~~first~~ total amount of bandwidth that can be allocated to said computer data traffic or to said telephone traffic,

data traffic generating devices for generating data traffic,

said data traffic requiring a ~~second amount of~~ bandwidth and having specified classes of service,

voice traffic generating devices for generating voice traffic,

said voice traffic requiring a ~~third amount of~~ bandwidth and having specified classes of service,

means for dynamically adjusting the amount of said total ~~first~~ bandwidth allocated to said data traffic and to said voice traffic depending upon the class of service of said traffic.

2. (Currently amended) A system for interconnecting telephones and computers, said system including a pool of trunk interconnection resources that can be used for either computer data traffic or telephone traffic, said interconnection devices providing a ~~first~~ total amount of bandwidth,

data traffic generating devices for generating data traffic,

said data traffic requiring a ~~second~~ an amount of bandwidth and having specified classes of service,

voice traffic generating devices for generating voice traffic,

said voice traffic requiring a ~~third~~ an amount of bandwidth and having specified classes of service,

means for dynamically managing said total amount of allocating bandwidth for multiple streams of data traffic and for multiple streams of voice traffic drawing from said pool of trunk interconnection resources based upon the class of service of said streams of data traffic and said streams of voice traffic.

3. (Previously presented) A modular system for interconnecting telephones and computers, said system having a plurality of modules which are interconnected by an Inter Chassis Bus (ICB), said modules including,

- a port for connection to said ICB,
- station input ports for local loops,
- trunk input ports for connection to a central telephone switch,
- Ethernet input ports for connection to a LAN network,
- an Integrated Data Services Network (ISDN) port for connection to an ISDN line,
- a first DSP for handling calls on said station input ports,
- a second DSP for handling calls on said truck input ports,
- A RISC processor for managing the entire system and for allocating resources to specific calls, said RISC processor including a filtering program and a bandwidth adjustment program,

whereby the resources of said system can be efficiently allocated to individual telephony calls or data flows.

4. (Original) The system recited in claim 3 including a software architecture which allows for multiple service types to combine their resources into a larger, shared resource pool.

5. (Original) The system recited in claim 3 including means for partially normalizes the class of service characteristics of voice and data traffic, such that the requests for resources for each service are easier to schedule from a single pool.

6. (Original) The system recited in claim 3 including means to maintain multiple qualities of service for services drawing from a single resource pool.

7. (Original) The system recited in claim 3 including means to provide the multiple qualities of service on integrated voice and data platforms.

8. (Previously presented) The system recited in claim 3 including means to improve shared resources multiplexing on integrated voice and data platforms.

9. (Previously presented) A switching system for efficiently transmitting calls from DS0 channels on a first unit to DS0 channels on a second unit through a public telephone system,

said system including an electronic medium having embedded thereon:

a flow classification program which classifies data packets into flows and which assigns a bandwidth to each flow,

a filtering program which filters each data flow to account for any mismatch between the bandwidth between which packets in said flow are offered to said system and the bandwidth which is available for said flow whereby some portion of some data traffic is dropped in accordance with a specified priority.

10. (Cancelled)

11. (Previously presented) A modular telephone and data switching system that includes a plurality of chassis, each chassis including,

means for interconnecting said chassis by means of an Inter Chassis Bus (ICB),

a RISC processor in each chassis,

local loop connection means including a first DSP processor for connecting to local loops,

trunk connection means including a second DSP processor for connecting to trunk lines,

an Ethernet controller for connecting to computers,

a Random Access Memory (RAM) for holding data and programs,

a data bus for connecting for data flow between said units,

a synchronous voice bus for connecting said local loop connection means, said trunk connection means and said ICB.

12. (Previously presented) An electronic medium for use in a system for transmitting calls from DS0 channels on a first unit to DS0 channels on a second unit through a public telephone system, said electronic medium having embedded thereon:

a flow classification computer program which classifies data packets into flows and which assigns a bandwidth to each flow,

a filtering computer program which filters each data flow to account for any mismatch between the bandwidth between which packets in said flow are offered to said system and the bandwidth which is available for said flow whereby some portion of some data traffic is dropped in accordance with a specified priority.